

ROCK ISLAND DISTRICT DREDGING UPDATE

Jon Klingman
February 2022



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- 2021 Summary
- 2022 Dredging Projections
- Ongoing DMMP / CARS
- Upcoming DMMP / CARS

IWW

- 2021 Summary
- 2022 Dredging Projections
- Ongoing DMMP Acquisitions
- Upcoming DMMP efforts

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- Grounding Reports



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CHANNEL MAINTENANCE STAFF



Jon Klingman - Chief, Channel Maintenance Section

Matt Afflerbaugh - Channel Maintenance Coordinator
(NEPA compliance, Permits)

Matt Martin – Dredging Coordinator, Mississippi River

Chris Reger - Dredging Coordinator, Illinois River

Hydro Survey

Jimmy Maher – Supervisory Eng. Tech

Chris Engelstad - Lead Eng. Tech, Hydro Survey

Cory Brenner - Lead Operator SV Dubuque

Vacant - Lead Operator SV Clark

Wyatt Kyarsgaard– Eng Tech.

Anthony Tipsword– Eng Tech.

Chance Sprout – Eng Tech.

Spencer Rushin – Eng Tech.

Kevin Ressie – Eng Tech. (Rehire)

**Project Management – Bre Popkin (Project Support
Section) DMMP and CARS Coordination**



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MISSISSIPPI RIVER



2021 DREDGING SUMMARY – MISS RIVER

Total Volume Dredged = 570,000 cubic yards

6 Hydraulic Jobs - Dredge GOETZ; 317,000 yards total (55%)
241K Channel / 76K Site Unload

14 Mechanical Jobs; 253,000 yards total
9 Jobs Gov Mech 152,000cy (27%)
7 Jobs Contract Mech 101,000cy (18%)



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2021 DREDGING - MISS RIVER

2021 Dredging Jobs - UMR 16-Dec-2021													
	Pool	Dredge	Riv Mile	Name	Total Quantit	Min Dredging Required To Pass Traffi	Current Stage	7-day Stag	7-day Chang	Depth at Minimum Pool Elev.	Current Actual Depth	7-Day Forecast Depth	Notes:
Complete	11	Mech Contract	596	Finleys	32,000	32,000	1.0	0.7	-0.2	11.0	12.0	11.7	Complete 12/13
	12	GOETZ	562	Island 241	38,000	20,000	0.4	0.2	-0.2	11.0	11.4	11.2	Complete 7/24
	12	MVR	560.7	Bellevue Slough (Mechanical)	24,000	24,000	0.3	0.2	-0.2	11.0	11.3	11.2	Complete 5/5
	12	GOETZ	560.5	Bellevue Slough	53,000	25,000	0.3	0.2	-0.2	11.0	11.3	11.2	Complete 7/31
	13	MVR	533.3	Sabula Lower	26,000	26,000	0.8	0.6	-0.2	11.0	11.8	11.6	Complete 7/22
	13	GOETZ	530	Smith Bay	48,000	48,000	0.6	0.4	-0.2	11.0	11.6	11.4	Complete 8/10
	14	Mech Contract	510	Marias Dosier	11,000	11,000	1.1	0.4	-0.7	11.0	12.1	11.4	Complete 9/28
	16	Mech Contract	469.4	Montpelier	19,000	19,000	1.3	0.9	-0.3	11.0	12.3	11.9	Complete 10/30
	17	GOETZ	447.7	Bass Island	31,000	32,000	1.0	0.6	-0.3	11.0	12.0	11.6	Complete 9/5
	17	GOETZ	446.3	Barkis Island	36,000	36,000	0.9	0.5	-0.3	11.0	11.9	11.5	Complete 8/21
	18	GOETZ	426	Willowbar Island (Ste Unload)	200,000	NA	1.4	1.0	-0.5	11.0	12.4	12.0	Complete 9/30
	18	Mech Contract	424.4	Cherokee	6,500	6,500	1.3	0.9	-0.4	11.0	12.3	11.9	Complete 11/19
	19	Mech Contract	397	Burlington Isl Light	23,500	23,500	1.1	0.9	-0.2	11.0	12.1	11.9	Complete 12/15
	21	MVR	339	Howards Crossing	35,500	15,000	1.3	1.2	-0.2	11.0	12.3	12.2	Complete 8/16
22	MVR	305.5	Cave Hollow	13,000	13,000	0.6	0.3	-0.3	11.0	11.6	11.3	Complete 4/26	
Pilot Channel	13	MVR	530	Smith Bay	15,000	15,000	0.6	0.4	-0.2	11.0	11.6	11.4	Pilot Channel #1 Complete 5/20/21
	13	MVR	530	Smith Bay (#2)	13,000	13,000	0.6	0.4	-0.2	11.0	11.6	11.4	Pilot Channel #2 Complete 7/7/21
	17	MVR	447.7	Bass Island	8,500	8,500	1.0	0.6	-0.3	11.0	12.0	11.6	Pilot Channel Completed 6/5/21
	18	MVR	424.4	Cherokee	6,500	6,500	1.3	0.9	-0.4	11.0	12.3	11.9	Pilot Channel Completed 6/19/21
Deferred	11	Mech Contract	609	Turkey River	49,000	49,000	1.7	1.5	-0.3	7.1	8.8	8.6	Narrow on bend
	11	Mech Contract	605	Cassville Lower	14,000	14,000	1.5	1.2	-0.3	7.5	9.0	8.7	Narrow on bend. - Industry Complaint
	11	Mech Contract	604	Buena Vista Upper	9,000	9,000	1.4	1.2	-0.3	7.5	8.9	8.7	Narrow, 250' (Shoal on RDB)
	11	Mech Contract	594	Rosebrook	29,000	9,000	0.8	0.6	-0.2	8.4	9.2	9.0	Shoal on RDB
	16	Mech Contract	482.8	Lock 15 Lower	8,000	8,000	2.8	2.5	-0.3	8.2	11.0	10.7	Deferred. Fines.
	16	MVR	475.9	Lirwood	22,000	22,000	2.0	1.7	-0.3	8.2	10.2	9.9	260' Channel. Shoaling LDB.
	20	Mech Contract	361.3	Des Moines River	25,000	25,000	1.4	0.6	-0.8	10.0	11.4	10.6	Scoured out.
	21	GOETZ	336	LaGrange	60,000	60,000	0.5	0.7	0.2	7.4	7.9	8.1	AIS Atons Broadcasting. Previous cross channel shoaling is clearing in the center
	21	MVR	332	Hogback	16,200	16,200	0.4	0.3	-0.2	8.5	8.9	8.8	Spotty shoaling
	22	GOETZ	305.5	Cave Hollow	40,000	40,000	0.6	0.3	-0.3	8.4	9.0	8.7	AIS Atons. Spotty shoaling, rapidly changing

MVR Strike

Apr 19 to Aug 17 (one crew May-Aug in NWK)

Dredge Goetz

July 17 to Oct 4

Contract Mechanical

Primary Aug 24 – Dec 15

Secondary Oct 14 – Dec 13

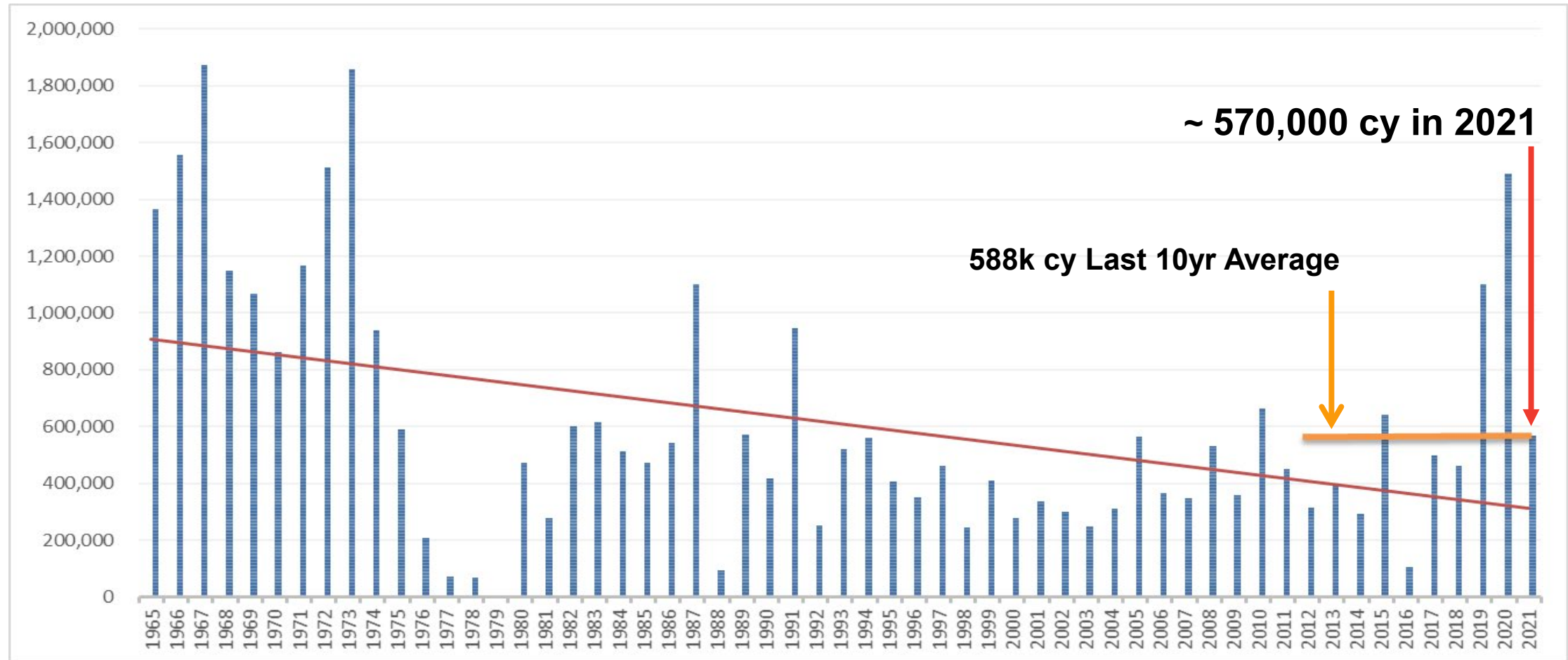
- 24 Dredging locations identified
- 5 Early areas pilot channel only – all later completed
- 14 Completed Locations
- 1 Partial site unload (Pool 18)
- 10 jobs either deferred or conditions improved and dredging was not required



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MISSISSIPPI RIVER HISTORIC DREDGING VOLUMES



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ROCK ISLAND DISTRICT (MVR) - CORPS OF ENGINEERS

2022 Dredging Schedule by Equipment - Upper Mississ

3-Jan-21

Pool	Site	River Mile	Dredging Dates Start End	Depth & Est. Quantity	Equip.	Placement Site	Placement Type	Cat.	
Scheduled Dredging Jobs (List will change after Spring Surveys)									
11	Turkey River	608.9-609.2		11 15,000	GM	TBD	TBD	R	
12	Cassville Lower	604.7-605.0		11 25,000	GM	604.7-605.0R	Bankline	R	
11	Finley's Landing	596.0-596.5		11 10,000	CM	Bathtub 594.1L	Upland DMMP Site	R	
11	Rosebrook	594.5-595.3		11 50,000	GH	Bathtub 594.1L	Upland DMMP Site	R	
11	Bathtub Entrance	594.1		11 3,000	CM	Bathtub 594.1L	Upland DMMP Site	N/A	
13	Elk River	529.1-529.3		11 15,000	GM	Between Islands 527.9R	Upland	R	
14	Steamboat	503.4-503.8		11 20,000	CM	503.7-504.1	Thalweg	R	
14	Lock 14 Upper	493.8-494.2		11 10,000	GM	503	Thalweg	R	
16	Lock 15 Lower	482.3-482.9		11 20,000	GM	TBD	TBD	R	
16	Linwood to Horse Island	475.3-476.1		11 20,000	CM	Pocket Beaches	Bankline	R	
16	Buffalo Lower	472.0-472.3		11 10,000	CM	Pocket Beaches	Bankline	R	
17	Lock 16 Lower	456.5-456.8		11 10,000	CM	456.2-456.4L	Bankline	R	
18	Keithsburg Upper	426.8-427.3		11 25,000	CM	427.1-427.3L	Bankline	R	
18	Cherokee	424.3-424.5		11 20,000	CM	425.4-426.0L	Bankline	R	
19	Kemp's Landing Lwr.	396.9-397.1		11 15,000	GM	Kemps RM 397.8-398.1L	Bankline	R	
20	Des Moines River	361.2-361.3		11 20,000	CM	360.9-361.3R	Bankline	R	
21	Howards	338.7-339.3		11 20,000	GM	339.0-339.5L	Bankline	R	
21	LaGrange	336.0-336.5		11 60,000	GH	336.3R	Bankline	R	
21	Hogback/Lonetree	331.5-331.9		11 15,000	CM	330.5-330.8	Open Water	R	
22	Cave Hollow	305.0-305.4		11 75,000	GH	Head of Harris Island 305.5L	Open Water	R	

* Currently operating at this job. ** Dredging completed ***Dredging requires OSIT approval. Mussel survey may be required for placement sites that have no

Total quantities by equipment:

Government Hydraulic - GOETZ (GH) =	185,000	^E = Emergency
Government Mechanical - (GM) =	120,000	I = Imminent Closure
Contract Hydraulic - (CH) =	0	R = Routine Dredging
Contract Mechanical - (CM) =	153,000	
Total Dredging =	458,000	Deferred Dredging =

INITIAL 2022 MISS RIVER DREDGE PROJECTIONS

Cassville	604.7-605.0
Finley's/Rosebrook	594.5-596.5
Elk River	529.1-529.3
15 Lower	482.3-482.9
Cherokee	424.3-424.5
LaGrange	336.0-336.5
Hogback	331.5-331.9
Cave Hollow	305.0-305.4



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MISSISSIPPI RIVER ONGOING DMMP SITE CONSTRUCTION / CARS



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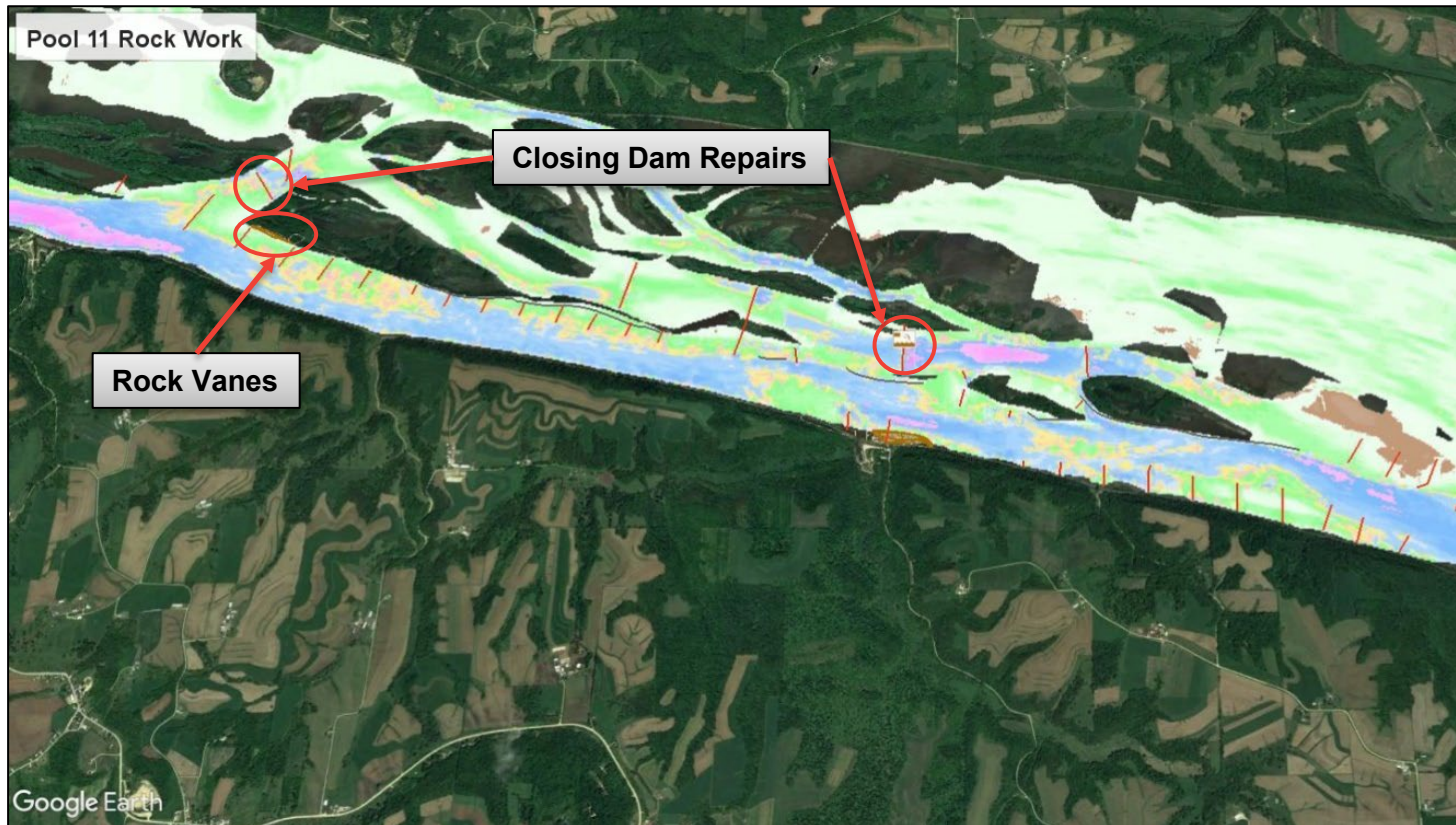


UMR (POOL 11) TRANSFER SITE CONSTRUCTION –RM 594.0



- Worked mid-August through December
- ~37,000cy placed in 2021
- ~ 125,000cy placed since start of construction – all utilized for construction
- Target completion in 2022; remaining work is primarily capping perimeter berms and mitigation areas with fines, final grading, seeding
- When complete we will have > 200,000 yards capacity

UMR (POOL 11) 595.0 HURRICANE ISLAND REACH ROCK WORK - CARS



- Degraded rock structures not functioning as originally built
- Provide channel stability and reduce shoaling
- Plan set to be finalized by EC (anticipated May 2022)

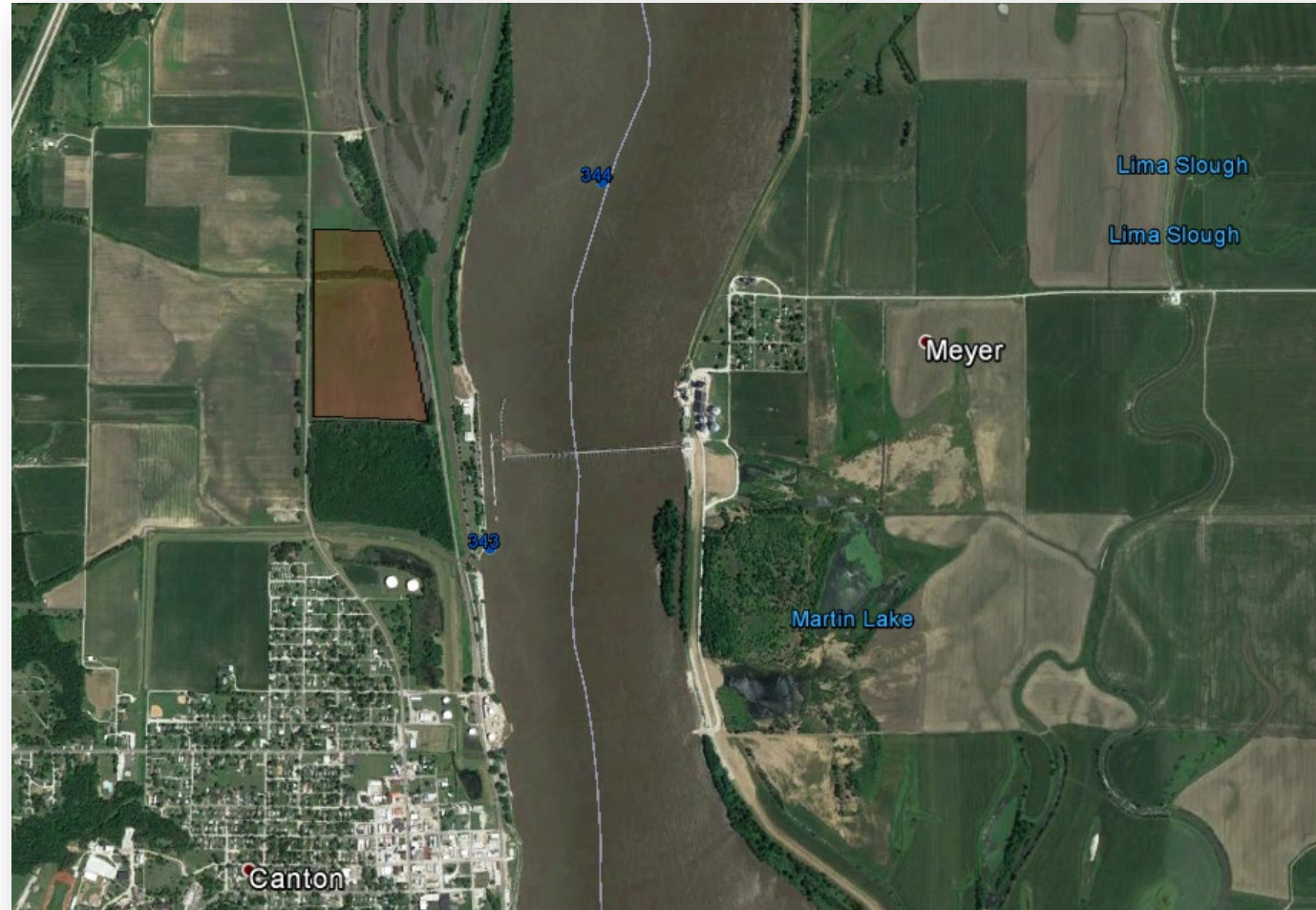
UMR (POOL 19) 398.0 KEMPS-CRAIGEL DMMP

- Plan set finalized
- Real Estate still working on agreement to cross county road with dredge pipes
- Site preparation and construction TBD.
- To be completed by OD-M crews

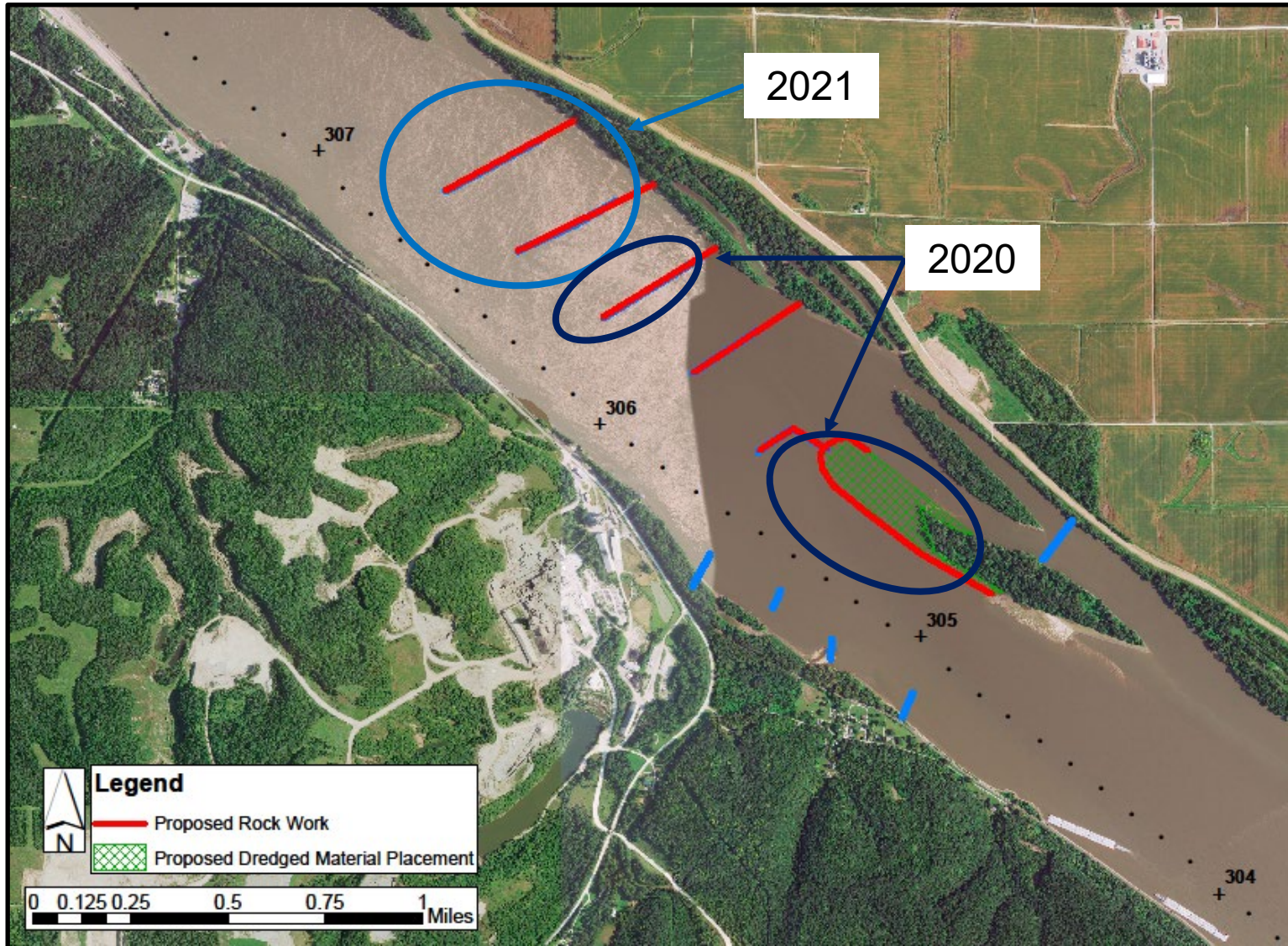


UMR (POOL 20) LOCK #20 UPPER

- Site construction began by OD-M crews in mid-December 2020.
- Construction at 95%
- BNSF License received – Lots of Requirements but site can now be utilized



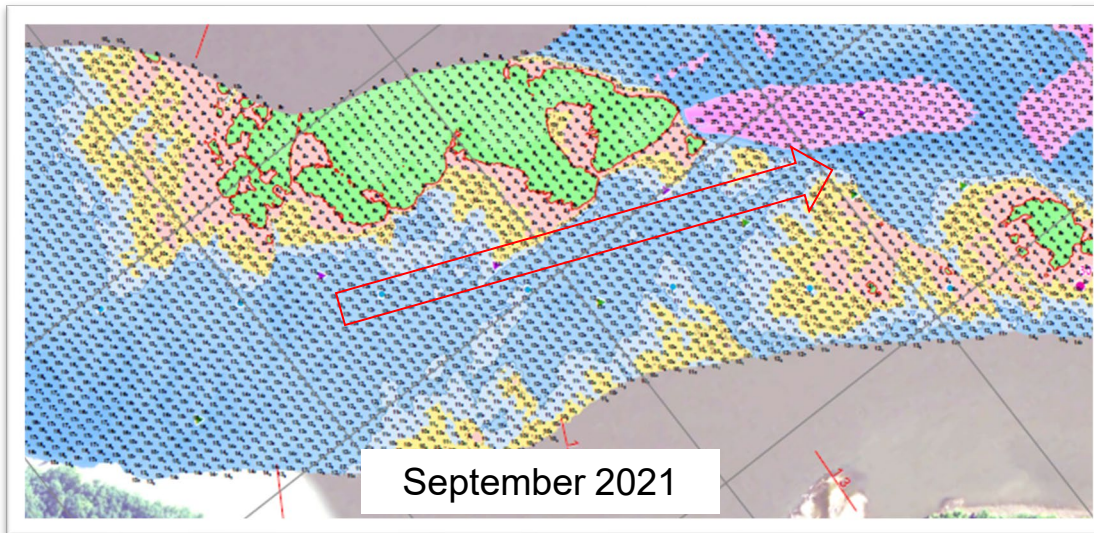
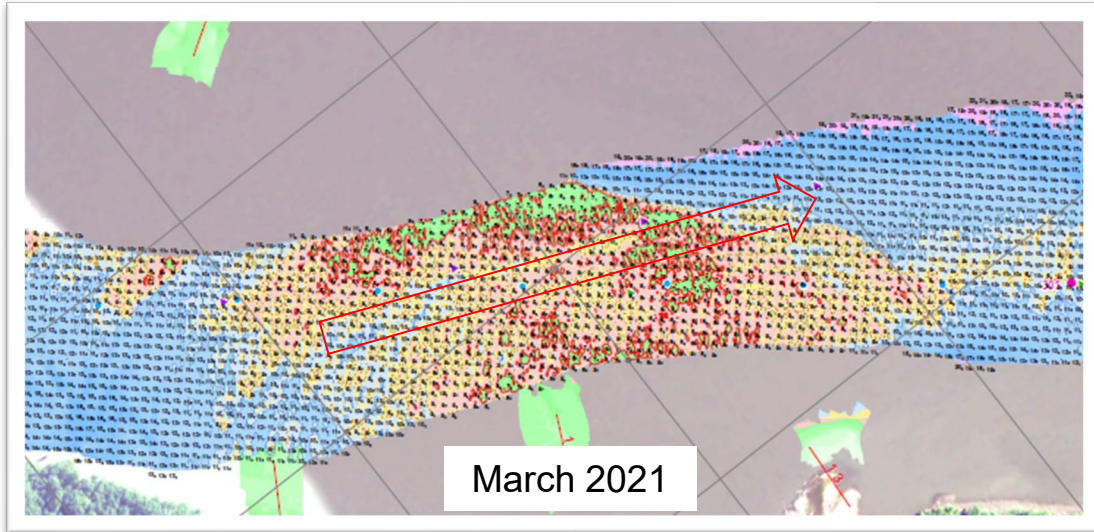
UMR (POOL 22) 306.0 CAVE HOLLOW ROCK WORK



Project Features:

- Restore rock at head of Harris Island
- Incrementally restore wing dams 4, 5, and 6 (7 and 8, if needed).

UMR (POOL 22) 305.4 CAVE HOLLOW CUT - SELF SCOURING



- 2020 Head of Harris Island was constructed and Wingdam 6 was rebuilt
- Wingdams are mobilizing sediment
- Weekly surveys conducted early in 2021 to track change
- 64,586 cu yds moved from March 17th to April 7th
- Wingdams 7 and 8 were rebuilt fall of 2021
- Continue to monitor in 2022

MISSISSIPPI RIVER UPCOMING DMMP/CARS



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UMR (POOL 13) SMITH BAY/DARK SLOUGH- ROCK WORK



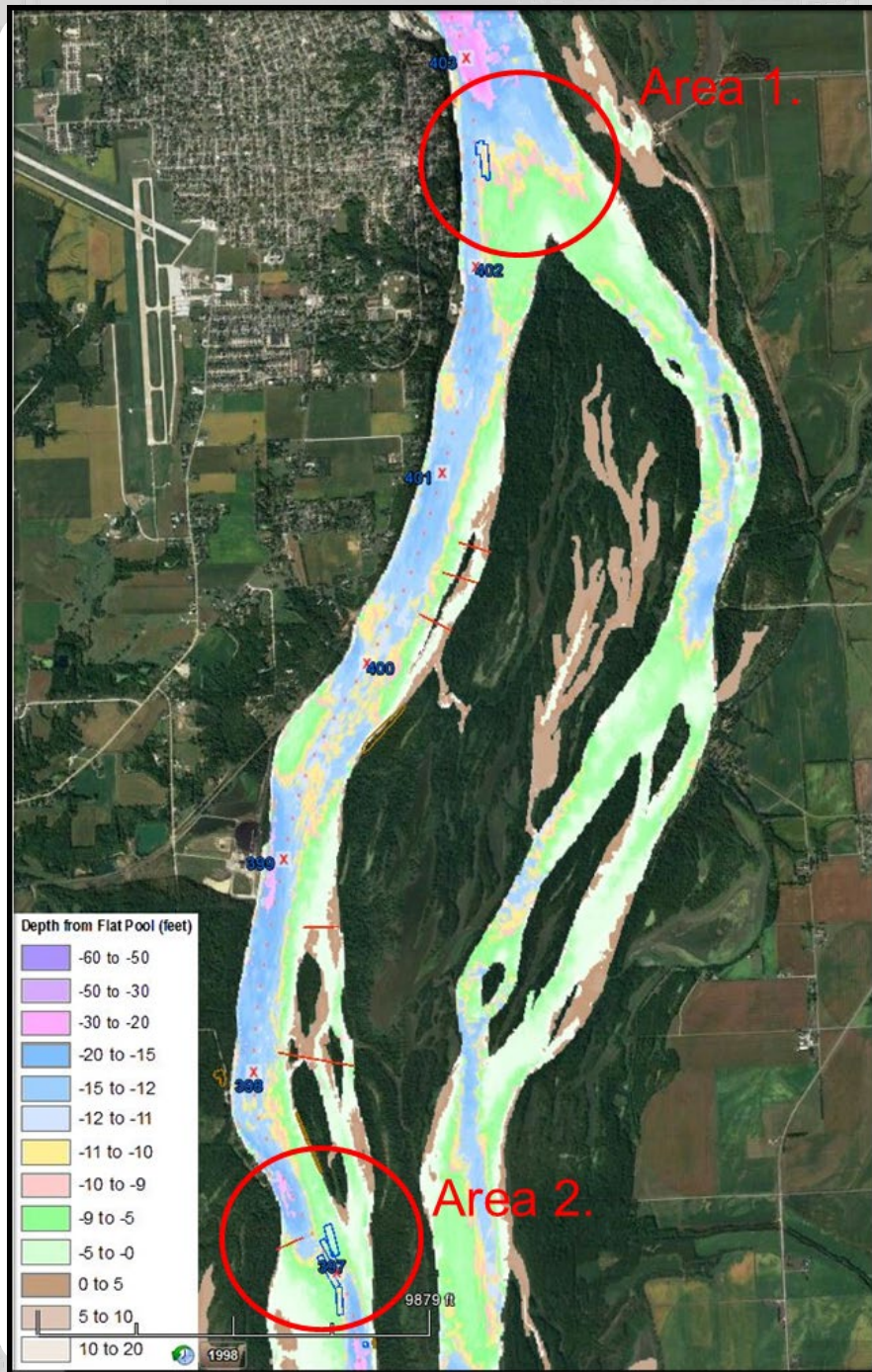
Suspended. No acceptable alternatives found (currently).

Working with FWS/States on additional placement sites

Project Features:

- Planning efforts began January 2021
- Areas: Sabula Lower (RM 533), Dark Slough (RM 531), and Smith Bay (RM 530), Elk River (529)
- Concern: Increased dredging frequency
- Team will evaluate options:
 - Identify and study problems
 - Potential solutions
 - Restore existing rock structures
 - Modify existing rock structures
 - Build new rock structures
 - Other ideas





UMR POOL 19 - BURLINGTON BLUFF

Project Features:

- Planning anticipated FY22
- Area 1 concerns: primary current shifts from navigation channel to side channel
- Area 2 concerns: sediment migrates across navigation channel, requires increasing dredging quantities & frequencies
- Team will evaluate options:
 - Identify and study problems
 - Potential solutions
 - Restore existing rock structures
 - Modify existing rock structures
 - Build new rock structures
 - Others ideas

ILLINOIS RIVER



FY 2021 DREDGING SUMMARY – IWW

Total Volume Dredged = 285,000 cubic yards

4 Hydraulic Jobs – Contract
200,000 cy (57%)

9 Mechanical Jobs - Strike Crew
85,000 (43%)

* Mechanical contract awarded late in the season – did not mobilize.



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2021 DREDGING SUMMARY – IWW

Gov Mechanical

11 Jan through 21 Oct (MVS 30 Nov - 3 Dec)

- Marseilles Lower, RM 244.2-244.3
- Bulls Island, RM 240.4-241.6 (2 events)
- Utica Placement Site Entrance, RM 228.0
- Vermillion River, RM 227.0-227.6
- Hennepin, RM 209.0-209.3
- Mackinaw River, RM 147.7-148.0
- Kingston Mines, RM 146.2-146.6
- Otter Creek, RM 112.2-112.5

Contract Hydraulic

19 July through 14 Oct

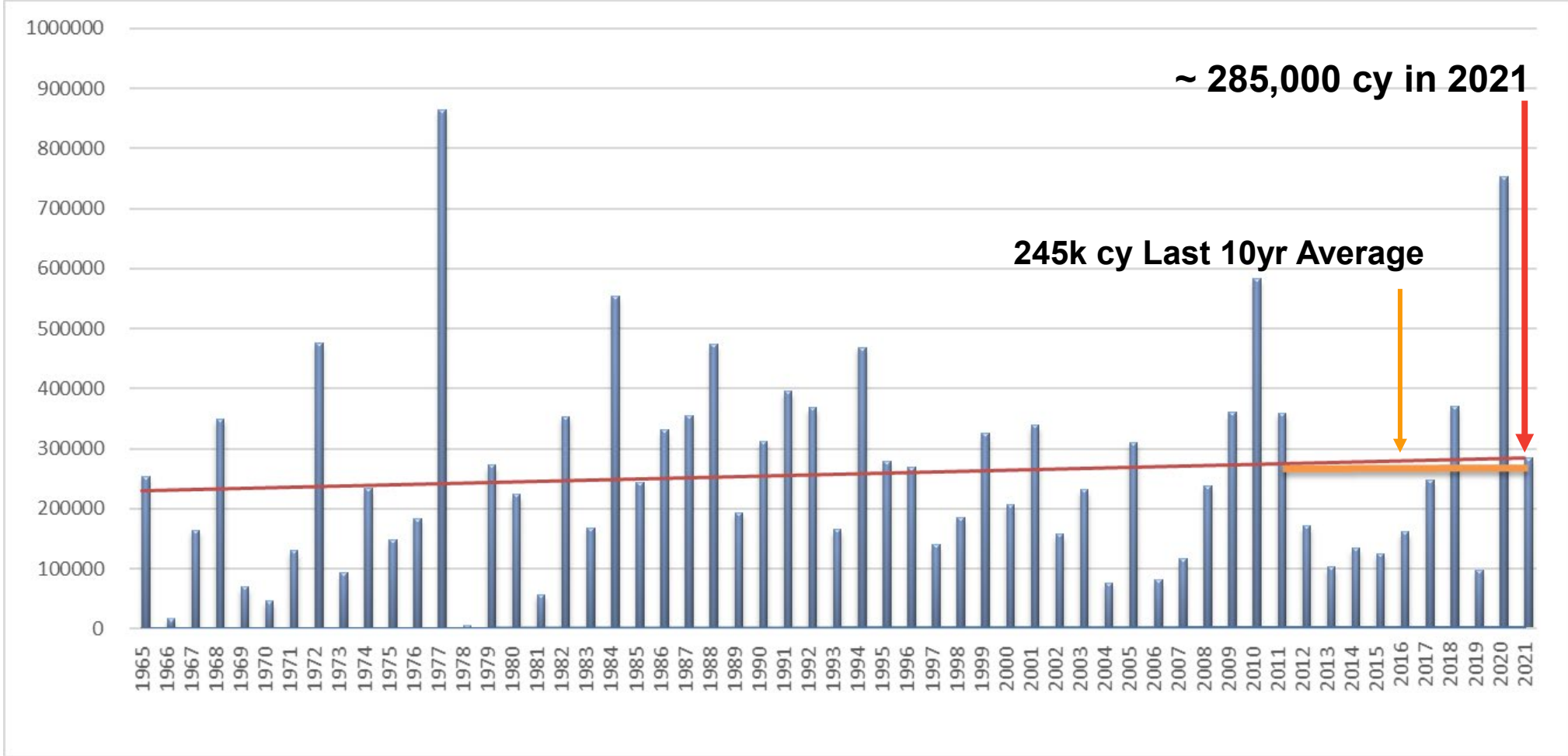
- Clark Island, RM 215.4-216.7
- Lancaster Landing, RM 142.2-143.0
- Lancaster Landing Lower, RM 141.4-142.0
- Senate Island, RM 132.7-133.6



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ILLINOIS RIVER HISTORIC DREDGING VOLUMES



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INITIAL 2022 IWW DREDGE PROJECTIONS

ROCK ISLAND DISTRICT (MVR) - CORPS OF ENGINEERS 2022 Dredging Schedule by Equipment - Illinois Waterway

19-Jan-22

Pool	Dredge Cut Name	River Mile	Dredging Dates		Depth & Est. Quantity	Equip.	Placement Site	Placement Type	Dredging Notice #	Job Order #	Cat.^
			Start	End							
LaGrange	Havana upper/Quiver Island	120.5-121.3			55,000	CH	120.2-121.5 R	Bankline			R
LaGrange	Mackinaw River ***	147.7-148.0	1/4/22	1/10/22	3,903	GM	146.4-147.0	Bankline			R
LaGrange	Pekin Bend (wiggles)	150.4-150.8			159,362	CH	150.0-151.0 R	Bankline/Upland			R
LaGrange	Kingston Mines	145.1-146.0			73,000	CH	144.9-145.6L	Upland			R
Starved Rk	Delbridge Island *	232.2-232.6	1/19/22		9,000	GM	243.7R	Upland			R
Starved Rk	Marseilles Lower	244.2-244.3			6,000	GM	241.7 R	Bankline or Upland			R
Peoria	Upper Henry Island	194.3-194.6			11,000	GM/CM	?	?			R

* Currently operating at this job. ** Dredging completed *** Dredging suspended.

Bankline placement requires OSIT approval. Marseilles Pool requires additional

Total quantities by equipment:

Government Hydraulic - (GH) =	0	Scheduled	306,265
Government Mechanical - (GM) =	18,903	Unscheduled	0
Contract Hydraulic - (CH) =	287,362	TOTAL	306,265
Contract Mechanical - (CM) =	0		
Hydraulic - (H) =	0		
Total Dredging =	306,265		

C = Critical
^E = Emergency
I = Imminent Closure
R = Routine Dredging

Havanna Upper	120.5-121.3
Quiver Island	122.0-122.5
Mackinaw River	147.7-148.0
Kingston Mines	145.1-146.0
Starved Rock Lower	230.6



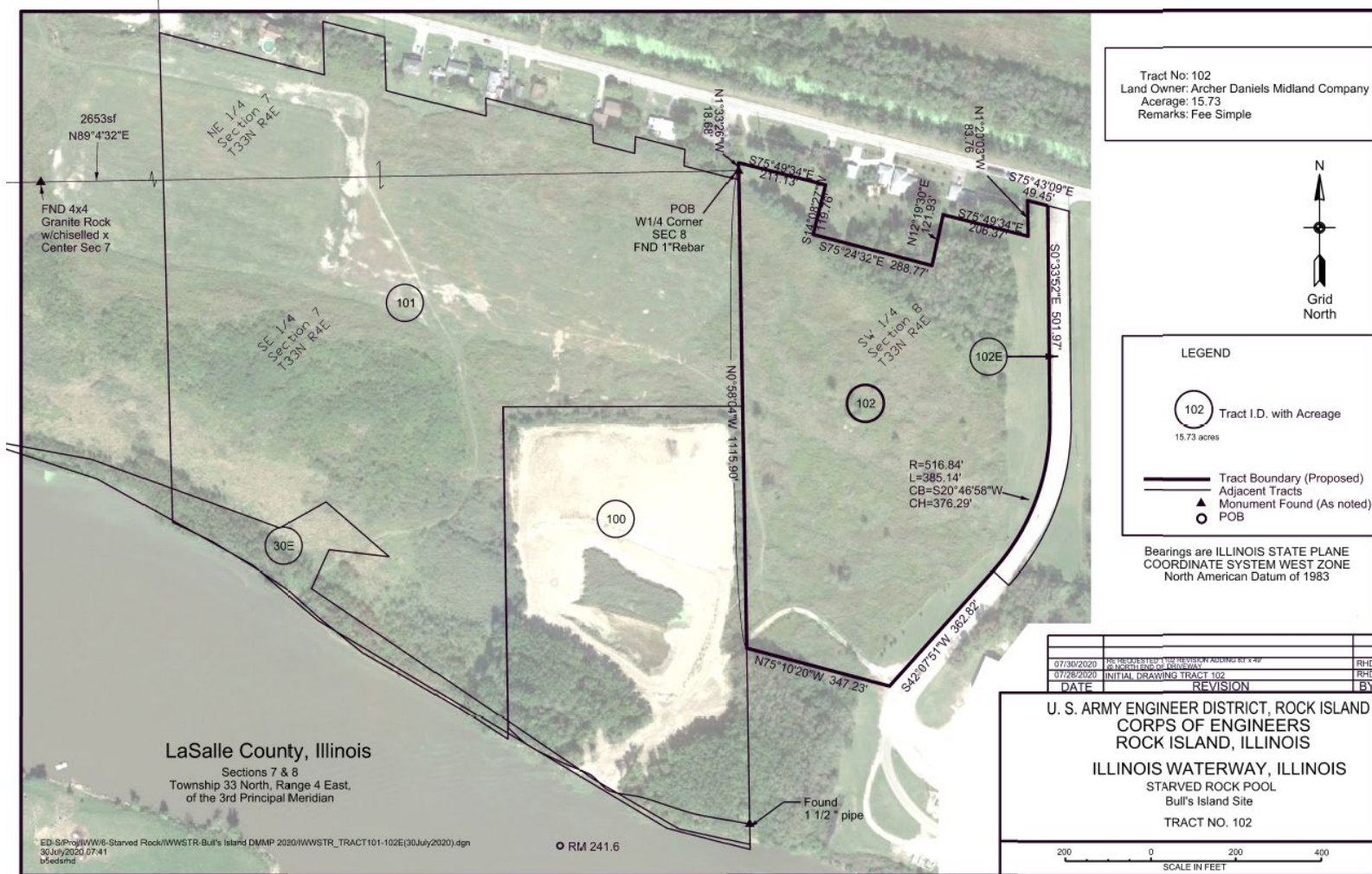
ILLINOIS RIVER DMMP ACQUISITIONS



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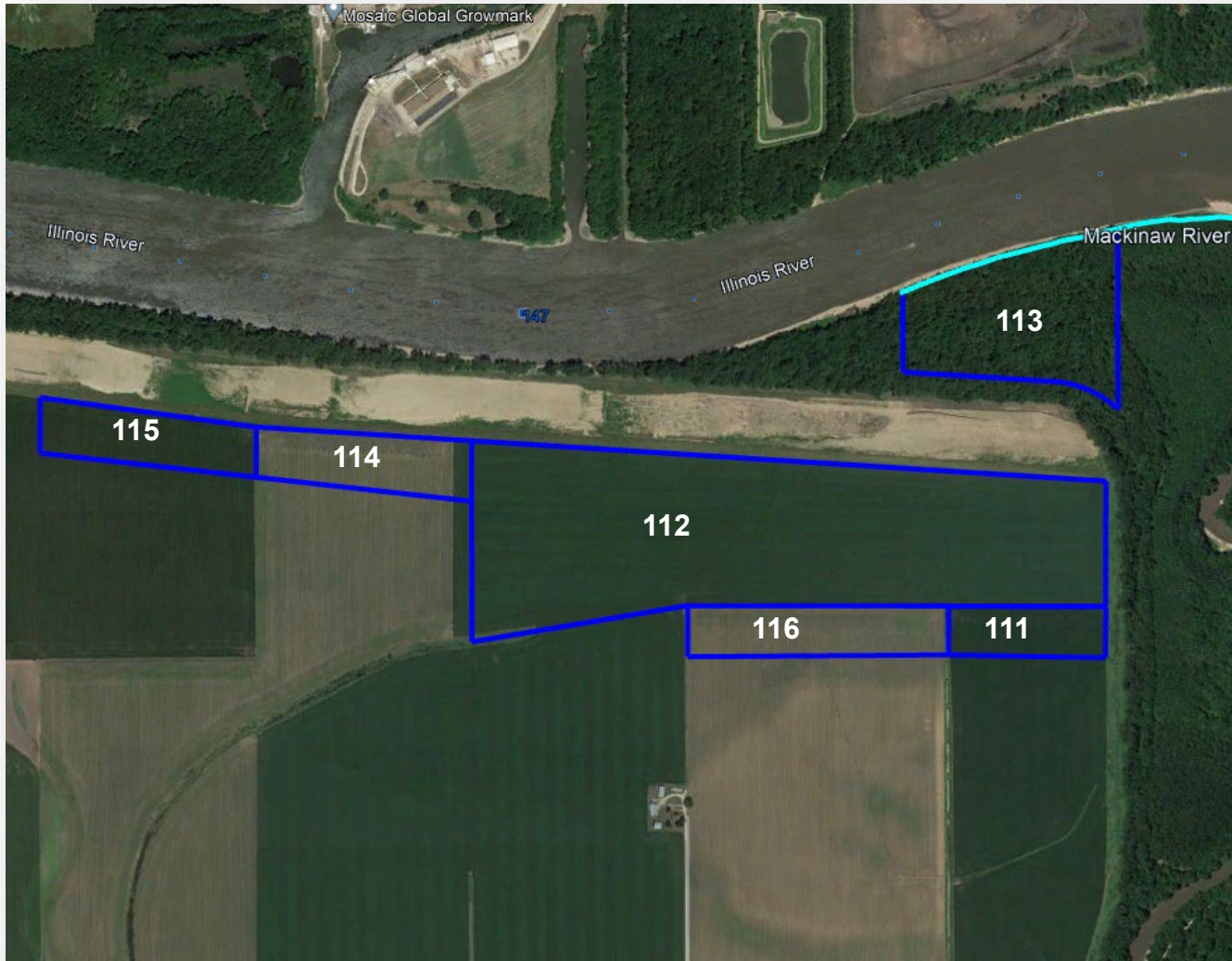


BULLS ISLAND DMMP



- 15.7 acre acquisition completed in 2021
- Initiated entrance road work
- Plans and specs development in FY23

MACKINAW RIVER DMMP



- Acquisition ongoing
 - Tract 111 – negotiations
 - **Tract 112 – closed**
 - Tract 113 – closing March
 - Tract 114 – pending OTS
 - Tract 115 – pending OTS
 - Tract 116 – negotiations
- Anticipate completing acquisition in FY22
- Additional 2.5M yards Capacity when constructed

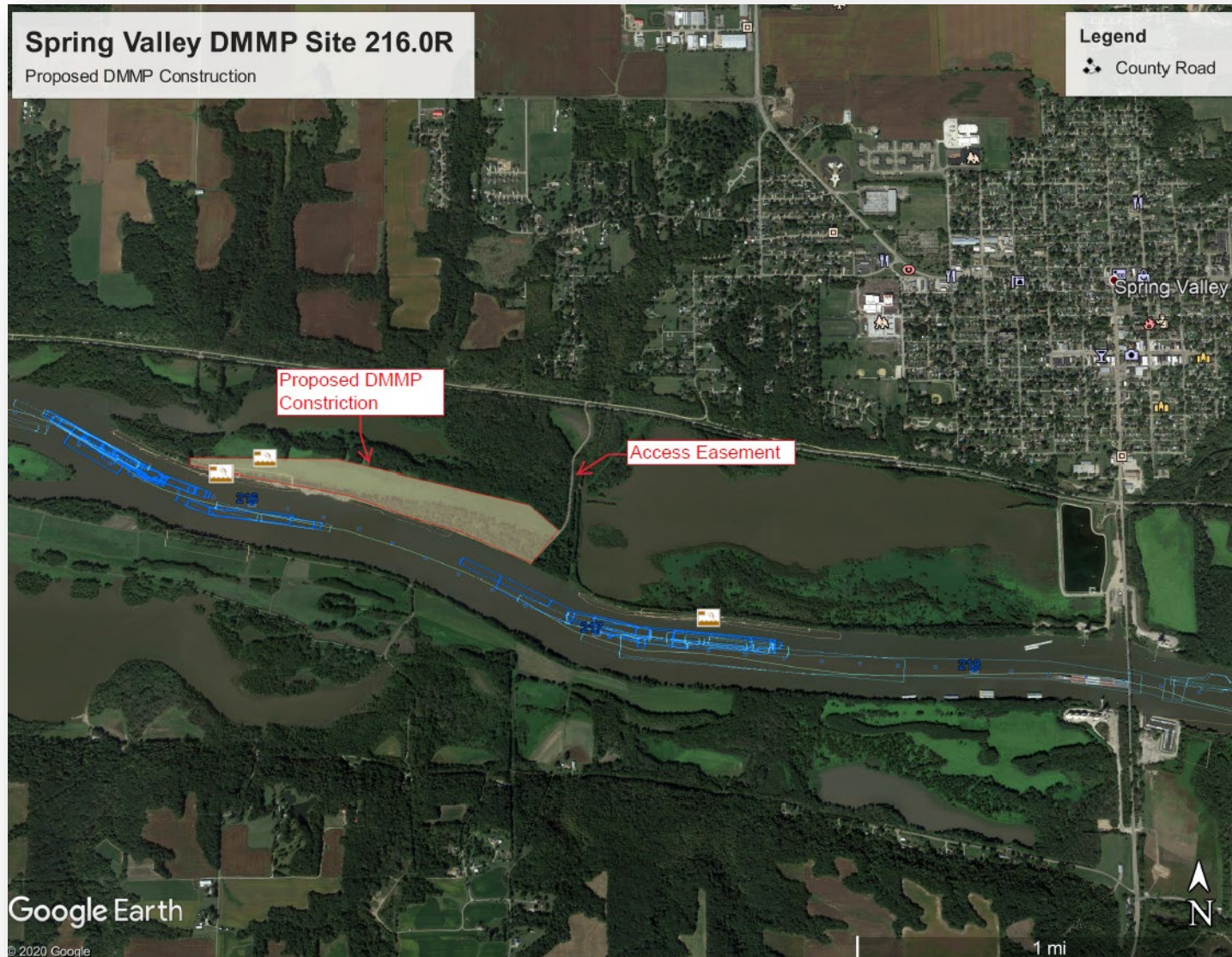
ILLINOIS RIVER UPCOMING DMMP EFFORTS



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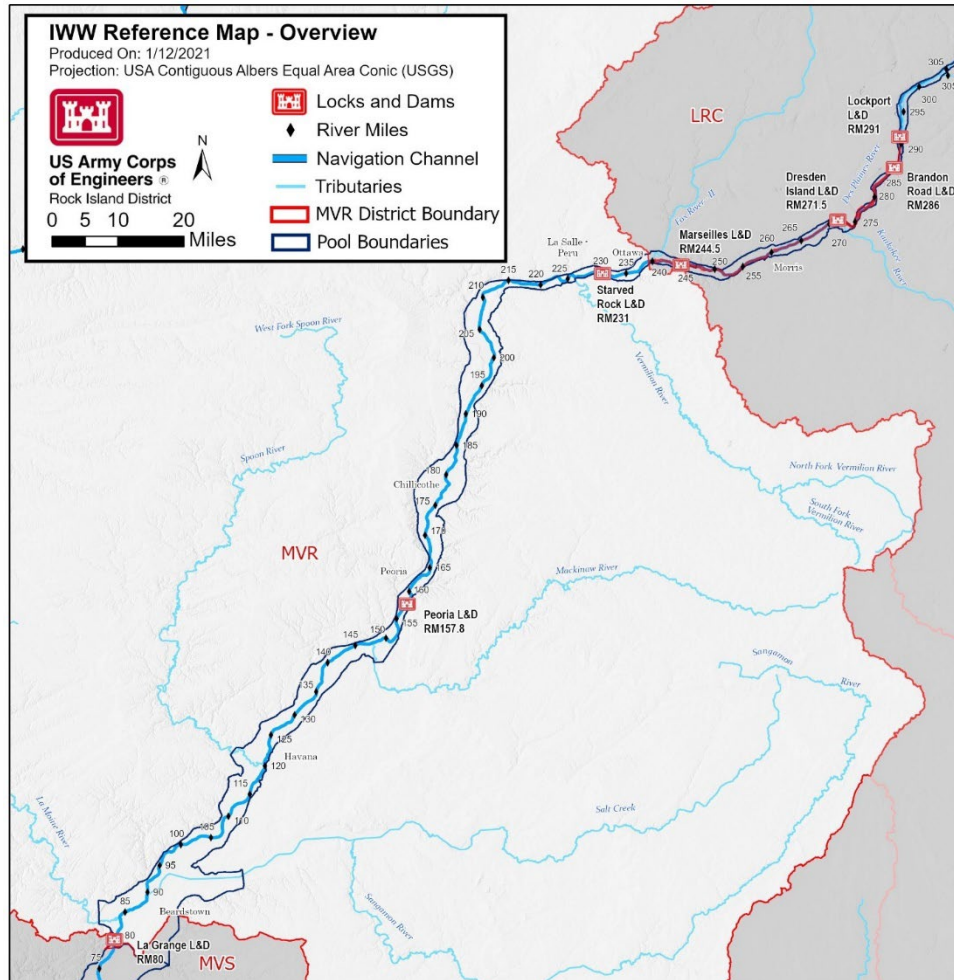
ILWW – SPRING VALLEY DMMP



- MATOC Task Order for construction awarded in 2021
- Construction ongoing by DCR Services (Detroit)



IWW – PRELIMINARY ASSESSMENT



- Preliminary Assessment drafted
- Covers MVR's AOR of IWW
- DQCR in February
- Recommendation for a DMMP

OTHER TOPICS.....

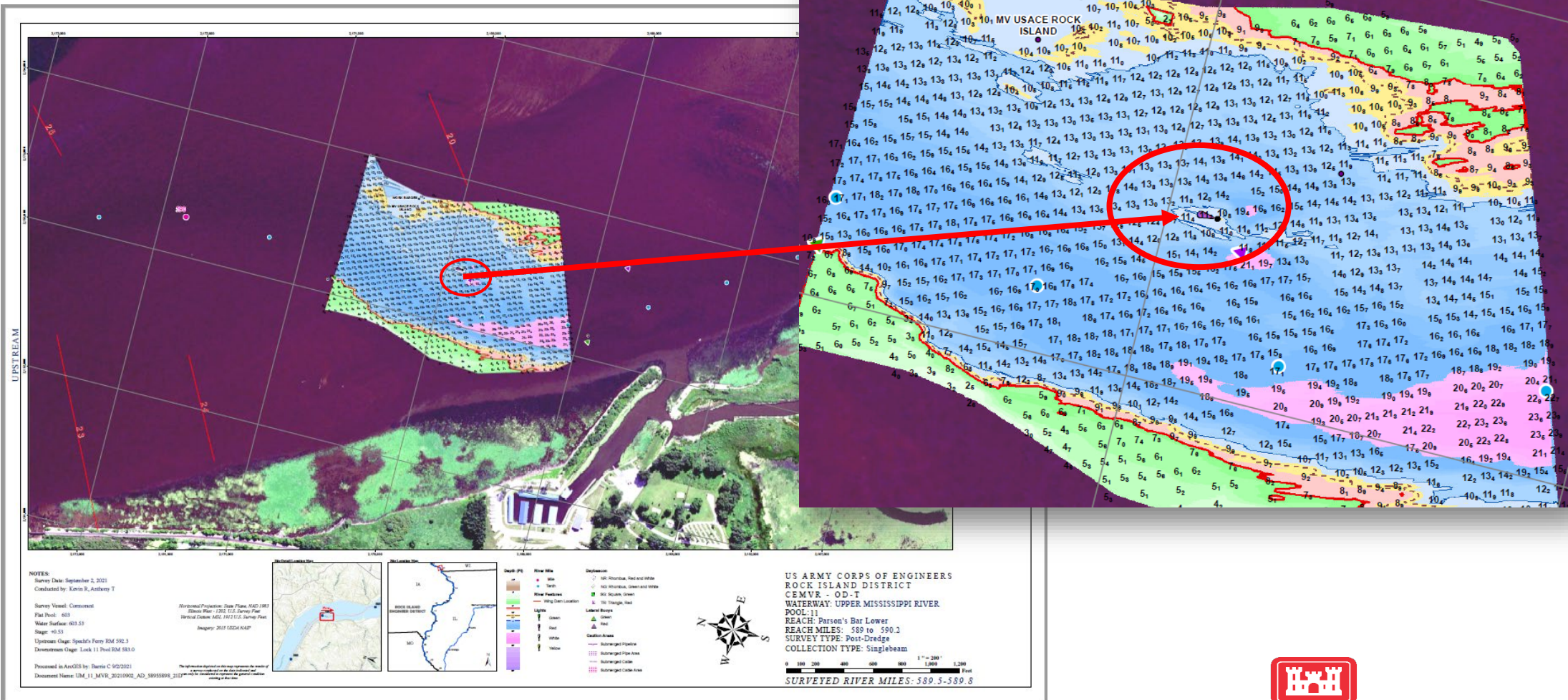


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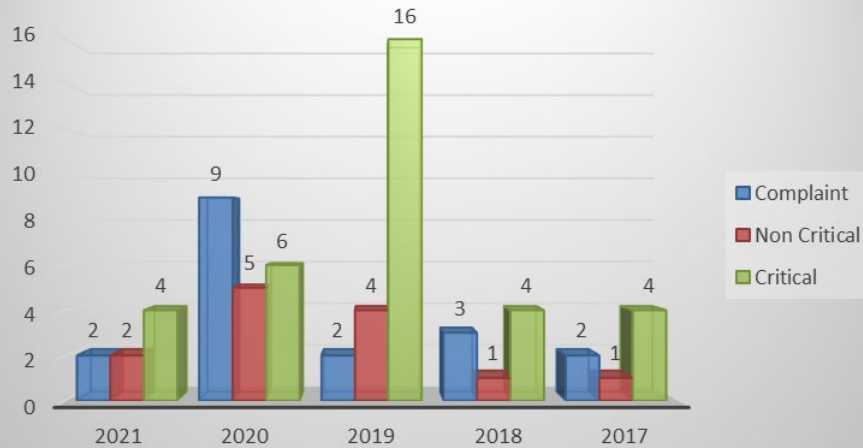
ISLAND 214 LIGHT BASE REMOVAL

UMR 589.6



GROUNDING REPORTS

Mississippi River Grounding Reports



Illinois Waterway Grounding Reports



Report of Navigation Problem			
Send Report To: US Army Corps of Engineers		E-mail: jon.a.klingman@usace.army.mil Fax (309) 794-5180 phone (309) 794-5505 (For Business Hours reporting)	
Category (check one - see attached memo for definitions)			
<input type="checkbox"/> Critical <input checked="" type="checkbox"/> Non-Critical <input type="checkbox"/> Complaint			
Location			
River	Illinois	River Mile	143.5
Pool	LaGrange	Bank	Middle of Channel
Date Aground	01/26/2021	Time Aground (HH:MM)	02:00
Date Free	01/26/2021	Time Free (HH:MM)	04:45
Name of Vessel MV Perpetual Grounder			
Loads	12	Empties	3
Draft	9.3	Direction	Upbound
Remarks			
Stuck again.			
Reporting Individual		Phone Number	(309) 555-1212
Date (mm/dd/yyyy)	01/26/2021	Coast Guard Notified?	Yes
OD-T Use Only			
Action Taken / Results			
Date/Time Commenced		Date/Time Completed	
Signature		Date	

SUBMIT



US Army Corps of Engineers





HOT INFO

All locks on the Illinois Waterway are open to navigation.

Illinois Waterway

Consolidated Lock Closures

The Illinois Waterway, which provides a navigable connection between Lake Michigan and the Mississippi River, includes eight lock and dam sites that are long overdue for significant repairs. To facilitate repairs, the U.S. Army Corps of Engineers, Rock Island District developed a consolidated repair schedule, which included a short closure to locks in 2019 followed by two extended closures in 2020 and 2023. The closures were scheduled to take place simultaneously to lessen impact to commercial navigation as much as possible. Work was successfully completed in 2019 and 2020, and the District is now preparing for the next closures in 2022 and 2023.

All lock and dam facilities on the Illinois Waterway have a single lock chamber for passing vessels. During the scheduled closures, no vessels will be able to pass through the affected locks. **Navigation on the rest of the river, between the locks, will not be impacted by the closures. Recreational and commercial vessels will be able to navigate within the pools without restriction.**



<https://www.mvr.usace.army.mil/Missions/Navigation/Navigation-Status/>

****NOTE: Projects and dates listed below are tentative dates and do not necessarily reflect the exact date each lock will close or reopen. The schedule is subject to change due to river levels, weather conditions, health and safety concerns due to COVID-19, project funding, and unknown circumstances that may be discovered during construction.**

2022

Brandon Road Lock and Dam – Upper Bulkhead Recess Installation

- Restriction period/partial closure (will pass traffic under a 70' width restriction from 6pm-6am): May 9-Aug. 14, 2022
- Full closure: Aug. 15-Sept. 4 2022
- Final restriction period/partial closure: Sept. 5-8, 2022

(dates subject to change based on weather, COVID or other unforeseen conditions)

2023

Brandon Road Lock and Dam – Upper Miter Gate Installation & Machinery Replacement

- Full closure scheduled **approx. 120 days (June 1-Sept. 30, 2023)**

Dresden Island Lock and Dam – Upper Miter Gate Installation, Valve Replacement, Machinery Replacement, and Electrical System Replacement

- Full closure scheduled approx. **120 days (June 1-Sept. 30, 2023)**

Marseilles Lock and Dam – Miter Gate Machinery Replacement and Electrical Rehab

- Full closure scheduled approx. **90-120 days (June 1-Sept. 30, 2023)**

Starved Rock Lock and Dam – Miter Gate Machinery Replacement

- Full closure scheduled approx. **90-120 days (June 1-Sept. 30, 2023)**